

Prevention of chemical violence in Syria

Chemical weapons are developed for the sole purpose of ruthless, blind, mass destruction. Technology and medical science are misapplied to destroy and terrorise society. A series of nerve gas attacks in Syria in the spring and summer of 2013 demonstrated a capacity and willingness to employ chemical violence in the conflict.

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In accordance with resolutions by the UN Security Council (1) and the Organisation for the Prohibition of Chemical Weapons (OPCW) (2), the Norwegian Armed Forces supported the dismantling of the Syrian chemical weapons programme in autumn 2013 and spring 2014. The Armed Forces played a part in the international operation Joint Passage/Removal of Chemical Agents from Syria (RECSYR) to remove chemical agents from Syria and thereby prevent future chemical violence in the country.

In the spring of 2014, I served as a doctor in Operation RECSYR. I built up a maritime emergency medical service on the Norwegian coastguard vessel KV *Andenes*, which escorted consignments of chemical agents being shipped from Syria. The emergency service was established and dimensioned to meet the special health challenges associated with handling and shipping dangerous chemicals out of a country engaged in civil war.

I have previously written about experiences of providing medical services in Afghanistan (3, 4). Our experiences in Syria demonstrate the range of challenges for medical services in military operations today.

The problem of chemical warfare

The roots of chemical warfare extend way back into antiquity. Smoke, contaminated drinking water and poisoned arrows have all been employed against enemies, with varying success (5). The considerable potential offered by chemical warfare was recognised early, and led to the development of ever more sophisticated toxicants/warfare agents and more effective means of delivering them.

Technological developments in the run-up to World War I laid the foundation for a dramatic breakthrough in chemical warfare. At the battle of Ypres in Belgium, in 1915, German forces succeeded in impacting a large number of Allied soldiers with lethal concentrations of chlorine gas. The attack marked the transition to chemistry as an

agent of mass destruction, and the start of a chemical weapons race in Europe. The following year, the French, British and Russian forces used chemical agents in attacks, employing cyanide. The weapons race continued with undiminished vigour through the interwar years and during and after World War II, with the USA now heading the field.

The combination of today's weapons technology and medical science has made efficient mass distribution of potent chemical weapons possible. This makes chemical warfare totally at odds with the ideal of selectivity in war – making a distinction between military and non-military interests.

Today, the international Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, the Chemical Weapons Convention, which entered into force on 27 April 1997, has made chemical weapons illegal (6).

The Syria quagmire

The escalating brutality in the Syrian conflict in spring 2013, coupled with accusations that chemical weapons had been used against the country's civilian population, triggered the UN resolution to appoint an independent international group of experts to investigate the incidents (7).

However, growing international concern

about developments in Syria failed to dampen the conflict in the country. On 21 August 2013, Ghouta, a suburb of Damascus, was attacked. Distressing images of human misery on a scale not previously seen in the conflict, distributed worldwide, placed Syria on the international political agenda in earnest.

Investigations quickly and unequivocally concluded that the civilian population had been subjected to a chemical attack with the nerve gas sarin (8). However, there was uncertainty as to who was responsible for the mass attacks.

The situation demonstrated beyond all possible doubt the importance of total chemical disarmament in Syria in order to prevent future attacks with chemical agents. The subsequent tug of war between the conflicting interests of major powers threatened to bog the conflict down in a diplomatic quagmire. Without adopting a position on guilt or taking sides in the underlying conflict, the UN Security Council passed a unanimous resolution in September 2013 to order the dismantling of Syria's chemical weapons programme (1).

The medical service resource KV *Andenes*

The shipping of chemical weapons out of Syria was supported by the Norwegian





The Norwegian coastguard vessel KV Andenes, escort for the shipping of chemical agents from Syria. Photo: The Norwegian Armed Forces

coastguard vessel KV *Andenes*. The vessel acted as a military escort at sea and provided medical services during the operation. Its infirmary was equipped to handle a wide range of conventional and chemical injuries and traumas in cooperation with the Norwegian National Unit for CBRNe Medicine, Oslo University Hospital, Ullevål.

Medical services in conflict situations are concerned primarily with preventing harm

and secondarily with medical treatment.

High priority medical services will often be closely tied to measures to win an ongoing conflict or to take cover from a threat.

Getting patients to safety will thus often be a key task for the medical services. The hull of the vessel is capable of providing protection against shots and splinters. Personal safety equipment and cleaning/decontamination of injured persons are crucial protection against chemical agents. Further

treatment must be deferred until the patient reaches safety.

We established a dedicated medical service team on the *Andenes* with evacuation, decontamination and treatment capacities, designed especially for conflict situations. The team consisted of medical services team leader, doctor, nurse, three first-aiders (paramedics) and personnel for manning a total of three stretchers/evacuations.

Chemicals expertise

The medical services team on the *Andenes* completed courses in CBRNe medicine at Oslo University Hospital prior to leaving for Syria. I used the guidelines from the CBRNe Centre as a basis for developing a programme for training the team in the necessary medical service skills. The point of departure was the identified threat scenarios facing the operation, and we placed emphasis on cooperation with external medical resources, helicopters and military support elements onshore.

The quality of the emergency service presupposed a high degree of maintenance training during the operation. Together with the nurse, I planned and guided drills for the team three to four times a week. I also drew on experience from other vessels involved in the Operation RECSYR fleet through visits and internships in their medical service organisation.

The medical preparedness of the *Andenes* was evaluated weekly by the joint services command of Operation RECSYR. As result



Medical service exercise in searching and cleaning up contaminated personnel. Photo: The Norwegian Armed Forces

of the confidence placed in it by the operational command, the *Andenes* came to play an important part as a medical resource during the shipping of chemicals from Syria.

Humanitarian needs persist

The last cargo of chemical agents left Syria on 23 June 2014 (9), and the *Andenes* has now sailed back to Norway. The fundamental differences in the Syrian conflict remain unresolved. The potential for chemical warfare in the conflict is reduced, but fighting in the country continues with undiminished ferocity. There is an urgent need for a political solution. We must not forget the need in Syria.

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